

EMPIRE COKE PLANT  
Birmingham Industrial District  
Holt Road  
Holt  
Tuscaloosa County  
Alabama

HAER No. AL-21

HAER  
ALA  
63-HOLT,  
2-

PHOTOGRAPHS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Department of the Interior  
P.O. Box 37127  
Washington, DC 20013-7127

ADDENDUM TO  
EMPIRE COKE PLANT  
(Mc Wane Coke Works)  
Birmingham Industrial District  
Holt Road  
Holt  
Tuscaloosa County  
Alabama

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA  
BLACK AND WHITE PHOTOGRAPHS

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ADDENDUM TO  
EMPIRE COKE PLANT

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Location: Holt Road, Holt, Tuscaloosa County, Alabama.

Ownership: McWane, Inc.

Dates of Construction: 1903, 1913

Builder/Architect/Engineer: Semet Solvay Company

Project Information: This report is based upon written documentation donated by the Birmingham Historical Society, reformatted to HABS/HAER guidelines.

Description: The plant contains 40 Semet Solvay ovens dating to 1903, 20 ovens dating to 1913, chargers, the original three story, wood-frame overhead, gravity-fed stock trestle, the by-products recovery plant with two original exhausters constructed in 1913 and the original streetcar-like rail system, coke wharfs, etc. The brick power house contains one Ridgeway No. 3377 Engine patented in 1885-1895 and a General Electric Direct Current Motor patented in 1902 as well as three other early compressors.

Condition: The site is currently in operation and well-maintained.

Significance: The Empire Coke Plant is an exceptionally well preserved, rare surviving example of the first by-product coke making process imported into the United States from Germany. Preceded only by plants at Syracuse, New York, Dunbar, Pennsylvania and a few others, now demolished, Empire's Semet-Solvay plant is still fully operational and employs most of the original equipment. The 1903 coke oven battery differs significantly from the 1913 battery and features a series of improvements, particularly in flue work

and oven heating techniques, representing early technological milestones in the evolution of the Semet-Solvay process.

The organization of work, retained virtually intact from the original plant, provides an extremely important record of the tasks and skills required before by-product coke making achieved the mechanization of modern plants.

#### HISTORICAL OVERVIEW

The coke works were built to supply the blast furnaces and foundry associated with Central Iron and Foundry Company's cast iron soil pipe works operated just to the west of the works until the 1980s. In 1903 the first battery of Semet Solvay ovens were built here and followed by a second battery and a by-product coke plant in 1913. The plant operated until the depression.

DeBardleben Coal Company acquired the coke works and by-product plant in 1940. Henry T. DeBardleben, son of Henry F. DeBardleben, served as President of DeBardleben Coal from its formation in 1923 through the merger of this company with Empire Coal Co. and Corona Coal Company in 1947. In 1948, the new company owned coal lands in Walker, Cullman and Fayette counties, engaged in mining on the Black Creek, Mary Lee and Corona Seams with an annual capacity of one million tons, operated retail coal yards in Birmingham, bunkering divisions at Mobile and New Orleans and this by-product plant.

McWane, Inc., headquartered in Birmingham, acquired Empire Coke in 1962. The 60 original Koppers ovens and by-product plant have been continuously operating since 1940, with the ovens individually relined as they wear out. It is believed to be the oldest operating Semet Solvay by-product plant in the nation. The Henry Ford Museum supplies spare parts to the plant.

**Sources Consulted**

- W. W. Davis, "The Semet-Solvay By-product Coke Oven," In Proceedings of the Engineer's Society of Western Pennsylvania, 26 by the Engineer's Society of Western Pennsylvania, 1910, 399-423.
- D. L. Jacobson, International Handbook on the By-product Coke Industry (New York: The Chemical Catalog Company, Inc., 1932).
- F. W. Miller, "Alabama has Made Great Progress in Coking Coal," Coal Age 26 (October 1924): 506-508.
- H. S. Geismer, and David Hancock. "Beehive and By-product Coke in Alabama," Coal Age 3 (June 1913): 879-882.
- Field Check with Marvin Harper, 8/12/91
- Birmingham Historical Society, Industrial Corporation files, McWane, Inc.
- Site Visit led by assistant plant manager Danny Lewis, 3/19/92
- Guy, Jim, plant manager, Interview by Brenda Howell, 11/18/92
- National Cyclopedia of American Biography, Vol. 47, p. 321
- Woodward, Joseph H., Alabama Blast Furnaces, 1940, pp. 78-79